

## **Remarks**

In the present response, thirteen claims (1, 3-6, 9-13, 21, 23-24) are amended; and one claim (25) is canceled. No new matter is entered. Claims 1-7, 9-14, and 16-24 are presented for examination.

### **I. Claim Objections**

Claims 9-13 are objected to because of informalities. These claims are amended to depend from claim 7 as suggested by the Examiner. Withdrawal of these rejections is respectfully requested.

### **II. Claim Rejections: 35 USC § 112**

Claims 2-6 and 25 are rejected under 35 USC 112, second paragraph, as being indefinite. Claims 2-6 are amended to recite the “multi-processor computer system” and claim 25 is canceled. Withdrawal of these rejections is respectfully requested.

### **III. Claim Rejections: 35 USC § 103**

Claims 21-25 are rejected under 35 USC § 103(a) as being unpatentable over USPN 6,347,337 (Shah) in view of USPN 6,515,963 (Bechtolsheim). Claims 1-6 are rejected under 35 USC § 103(a) as being unpatentable over Shah in view of Bechtolsheim and USPN 6,715,008 (Shimizu), and USPN 6,751,698 (Deneroff). These rejections are traversed.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art cited must teach or suggest all the claim limitations. *See M.P.E.P. § 2143.* For at least the following reasons, Applicants assert that the rejection does not satisfy these criteria.

**Independent Claim 1**

**Missing Claim Elements**

Independent claim 1 recites numerous recitations that are not taught or suggested in the art of record. By way of example, claim 1 recites a credit-based allocation scheme that “returns credits in a round-robin manner if a number of filled spaces in the shared buffer exceeds the threshold.” The art of record does not teach or suggest these recitations.

For at least these reasons, claim 1 and its dependent claims are allowable over the art of record.

**No Motivation to Combine/Modify References**

Claim 1 recites numerous recitations directed to a multi-processor computer system (i.e., a computer system using plural processors) using a shared buffer credit-based allocation scheme. The Examiner admits that “Shah and Bechtolsheim do not specifically disclose a plurality of processors . . .” (see OA at p. 6). Applicants agree with this admission. The Office Action, however, attempts to cure these deficiencies with two additional references (Shimizu and Deneroff). Applicants respectfully disagree.

Although each of the four references (Shah, Bechtolsheim, Shimizu, and Deneroff) mention the word “buffer” they use the term in very different contexts. For example, Bechtolsheim discusses buffers in the context of networks, such as Voice-over-Internet networks or networks using Internet Protocol packet flows. By contrast, Shimizu discusses buffers in the context of a multi-processor computer system. By further contrast, Shah discusses buffers in the context of Virtual Interface (VI) architecture. These systems use buffers in a very different manner. These references are a mix of different systems using different numbers of processors with different uses for buffers. As such no motivation or suggestion exists to combine and/or modify the references as suggested by the Examiner.

To establish a *prima facie* case, the Examiner must not only show that the combination includes *all* of the claimed elements, but also a convincing line of reason as to why one of ordinary skill in the art would have found the claimed invention to have

been obvious in light of the teachings of the references. *Ex parte Clapp*, 227 U.S.P.Q. 972 (B.P.A.I. 1985).

#### Picking and Choosing: Using Hindsight Construction

In order to reject claim 1, the Examiner combines **four different references**. Applicants respectfully assert that the Examiner is using knowledge of Applicants' invention and then performing hindsight reconstruction to show the various claim elements. The Office Action is picking and choosing teachings from numerous isolated and unrelated references. On this subject, the case law is clear: One cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention. *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988).

For at least these reasons, claim 1 and its dependent claims are allowable over the art of record.

#### Independent Claim 7

Independent claim 7 and its dependent claims are allowed.

#### Independent Claim 14

Independent claim 14 and its dependent claims are allowed.

#### Independent Claim 21

##### Missing Claim Elements

Independent claim 21 recites numerous recitations that are not taught or suggested in the art of record. By way of example, claim 21 recites "when the number of filled spaces in the buffer exceeds the threshold, then returning credits to the processors in a round-robin manner as space in the buffer becomes free." The art of record does not teach or suggest these recitations.

For at least these reasons, claim 21 and its dependent claims are allowable over the art of record.

**No Motivation to Combine/Modify References**

Claim 21 recites numerous recitations directed to a multi-processor system (i.e., a system using plural processors). As discussed in connection with claim 1, no suggestion or motivation exists to combine four different references as argued by the Examiner.

**Picking and Choosing: Using Hindsight Construction**

Applicants reiterate the arguments with respect to claim 1 since to reject amended claim 21, the Examiner must now combine **four different references**.

For at least these reasons, claim 21 and its dependent claims are allowable over the art of record.

**IV. Allowable Subject Matter**

Applicants thank the Examiner for indicating allowable subject matter in this application. With the present amendments and remarks, Applicants make a sincere effort to place this application in condition for allowance.

## **CONCLUSION**

In view of the above, Applicants believe all pending claims are in condition for allowance. Allowance of these claims is respectfully requested.

Any inquiry regarding this Amendment and Response should be directed to Philip S. Lyren at Telephone No. 832-236-5529. In addition, all correspondence should continue to be directed to the following address:

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Respectfully submitted,

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